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Departamento de Matemáticas



## 8th WORKING GROUP MEETING (WGM-2022) **DIGFORASP COST ACTION 17124**

Naples, Italy October  $5^{\text{th}}$  -  $7^{\text{th}}$  2022.



| WEDNESDAY $5^{\mathrm{th}}$  |  |  |  |  |
|--|--|--|--|--|
| Workshop DigForASP   |  |  |  |  |
| Location: Hotel Royal Continental  |  |  |  |  |
| 10:00-11:00  | <b>Keynote Speaker - Stefania Costantini</b><br>Title: TBA<br>Chairperson: Jesús Medina  |  |  |  |
| 11:00-11:20  | Coffee break   |  |  |  |
| 11:20-13:30  | ESCIM2022 Session. Chairperson: Stefania Costantini  |  |  |  |
|  | Lattice valued aggregation operators applicable in digital forensics<br>Maria Eugenia Cornejo Piñero, Jesús Medina, Ivana Stajner-Papuga and Andreja Te-<br>pavcevic |  |  |  |
|  | Power consumption-based identification of used encryption solution in IoT environments<br>Aleksandar Jevremović and Zona Kostic                                      |  |  |  |
| Maritime Cyber Security Based on a Convolutional Neural Network<br>Jamal Raiyn |  |  |  |  |
|  | Epistemic Logic and Theory of Mind for Modelling Group Dynamics of Criminal Orga-<br>nizations<br>Stefania Costantini, Andrea Formisano and Valentina Pitoni         |  |  |  |
|  | Intrusion detection using intelligent systems<br>Laszlo Barna Iantovics, Olivér Hornyák, Gloria Cerasela Crisan, Bogdan Crainicu and<br>Elena Nechita                |  |  |  |
|  | Analysing the influence of the pandemic on crime patterns in North Macedonia<br>Aleksandra Dedinec, Sonja Filiposka and Anastas Mishev                               |  |  |  |
| 13:30-15:00  | Lunch  |  |  |  |

| WEDNESDAY 5 <sup>th</sup> – Afternoon |  |  |  |  |
|---------------------------------------|--|--|--|--|
| Workshop DigForASP. Abstracts         |  |  |  |  |
| Location: Hotel Royal Continental     |  |  |  |  |
| 15:00-16:20                           | Abstracts Session AS1. Chairperson: Jesús Medina   |  |  |  |
|                                       | Deceptive Dialogue Models for Online Grooming Detection<br>Juan Carlos Nieves, Tobiaz Paulsson and Andreas Brännström  |  |  |  |
|                                       | Statistical and fuzzy c-means based analysis of the aggressive attitudes of a forensic po-<br>pulation<br>Daiva Zostautiene, Dalia Susniene, Ojaras Purvinis and László T. Kóczy |  |  |  |
|                                       | Textual Fuzzy Fingerprints in Digital Forensics<br>Joao Paulo Carvalho   |  |  |  |
|                                       | Driver identification using anomaly detection<br>Roberto G. Aragón, Giovanni Bassetti and Jesús Medina.  |  |  |  |
| 16:20 - 16:40                         | Coffee break   |  |  |  |
| 16:40-18:00                           | Abstracts Session AS2. Chairperson: Aleksandra Dedinec   |  |  |  |
|                                       | Clustering of relevant digital evidence in the forensic timelines<br>Pavol Sokol, Eva Marková and Kristína Kováčová  |  |  |  |
|                                       | ENCROCHAT THROUGH THE LENS OF ART. 6 ECHR. The Hacker with a Warrant<br>and Fair Trials?<br>Adi Stoykova   |  |  |  |
|                                       | Relationship between security events and the legal framework related to the origin of the attacks<br>Pavol Sokol, Laura Bachňáková Rózenfeldová and Regina Huckova.              |  |  |  |
|                                       | Experiencing the crisis of modernity, law and fuzzy logic applied to legal logic Tania Cerasella   |  |  |  |

| TUESDAY 6 <sup>th</sup><br>Workshop DigForASP. Abstracts<br>Location: Hotel Royal Continental                          |  |  |  |  |
|--|--|--|--|--|
| 9:00-11:00   | Abstracts Session AS3. Chairperson: Stefania Costantini  |  |  |  |
| An Architecture for Semi-Autonomous Decision-Support in Police Intervention<br>Juan Carlos Nieves and Viviana Mascardi |  |  |  |  |
|  | Contrasting Evidence from Phone Recordings with Answer Set Programming<br>Francesca Alessandra Lisi and Gioacchino Sterlicchio |  |  |  |
|  | Mining Sequences in Phone Recordings with Answer Set Programming<br>Francesca Alessandra Lisi and Gioacchino Sterlicchio       |  |  |  |
| Advanced languages of terms for ontologies<br>Philippe Balbiani, Martín Diéguez and Cigdem Gencer                      |  |  |  |  |
|  | Explaining the causes of crime with the use of artificial intelligence methods<br>Maciej Kusy                                  |  |  |  |
|  | Knowledge-based System for Supporting Soundness of Digital Forensic Investigations<br>Milica Matijević                         |  |  |  |
| 11:00-11:30  | Coffee break   |  |  |  |

| TUESDAY 6 <sup>th</sup> . Continuation<br>Parallel Sessions |   |   |  |  |
|---|---|---|--|--|
| 11:30-13:30   | <b>Tutorial - Chiara Gallese</b><br>Title: AI Ethics and Law in Digital Forensics   | Working group parallel meetings 1<br>Venue: Fixed by WG leaders |  |  |
|   | Chairperson: Viviana Mascardi   | venue. Fixed by we leaders                                      |  |  |
| 13:30-15:00   | Lunch   |   |  |  |
| 15:00-16:00   | Tutorial - Dévika Perez   | Working group parallel meetings 2                               |  |  |
|   | Title: Limits and legislative challenges of ar-<br>tificial intelligence-based tools for evidence<br>gathering<br>Chairperson: Jesús Medina | Venue: Fixed by WG leaders                                      |  |  |
| 16:00-18:00   | Tutorial - Piotr Kowalski   | Working group parallel meetings 3                               |  |  |
|   | Title: Exploratory analysis of forensic data  | Venue: Fixed by WG leaders                                      |  |  |
| 20:00   | Dinner  |   |  |  |

| FRIDAY 7 <sup>th</sup><br>Parallel Sessions and Management Committee meeting |   |   |  |  |
|--|---|---|--|--|
| 9:00-11:00   | <b>Tutorial - Aleksandar Jevremovic</b><br>Title: Using EdgeAI to process sensitive da-<br>ta, and preserve privacy and digital eviden- | Working groups. Challenges and advances |  |  |
|  | ces   |   |  |  |
| 11:00-11:30  | Coffee break  |   |  |  |
| 11:30-13:30  | Tutorial - Ivana Stajner  | Management Committee meeting            |  |  |
|  | Title: There is something fuzzy in digital forensics  | Venue: Hotel Royal Continental          |  |  |
| 13:30 -14:30   | Lunch   |   |  |  |
| 14:30 -16:00   | Management Committee meeting  |   |  |  |